

NAVAL SEA SYSTEMS COMMAND

AEGIS Computer Center



NAVAL SURFACE WARFARE CENTER

DAHLGREN DIVISION

DAHLGREN PANAMA CITY DAM NECK

Overview

The AEGIS Computer Center is the principal Navy facility supporting computer program engineering for operational AEGIS cruisers and destroyers. The ACC provides the AEGIS fleet, warfighters, and community with the facilities and support services to generate, test, integrate, and deliver quality assured AEGIS tactical, simulation, support, and training computer programs. All computer programs delivered to operational AEGIS ships come from the ACC.

The facility houses shipboard computers, displays, and peripherals, along with simulation, program generation, data reduction, systems analysis, configuration management, and communications equipment.

Program Generation and Analysis

The program generation and analysis functions performed in the ACC utilize a host of commercial computing systems ranging from mainframe to workstations, accessed locally and remotely by more than 800 different users each day. Primary activities conducted include:

- AEGIS element level code, design, and analysis
- Generating or integrating source-level computer programs or changes
- Data compilation of source code
- Data reduction and analysis in support of computer program development and maintenance
- Data reduction and analysis of critical test data from AEGIS ship operations events
- Computer program, ship, and site configuration management

Computer Networks

In support of NSWCDL roles and responsibilities within the AEGIS program, the ACC manages and connects to a variety of communication networks utilized by the AEGIS community.

- AEGIS Sites Network (ASN)
- AEGIS Communications Support System (ACSS)
- AEGIS Broadcast Network (ABN)
- INMARSAT Network
- AEGIS Performance Network (APAN)
- ACC Unclassified Support System (AUSS)
- Distributed Engineering Network (DEN)
- Theater Missile Defense System Exerciser (TMDSE)
- Fiber-optic links to other NSWCDL facilities

Computer Program Test

The ACC provides a real-time, test bed environment critical to the AEGIS computer program maintenance, upgrade, and certification. Shipboard systems are paired with high fidelity suites simulating sensor and weapon systems not contained within the facility. Primary functions include:

- Duplication and resolution of fleet reported computer program problems
- Element level test and debug
- Multi-element and system level integration
- Computer program load cycle testing prior to ship delivery



Communications capability is provided to ACC users to integrate ACC systems with other combat system facilities within the NSWCDL complex and throughout the nation, as well as in operational ships. The capability provides ACC users the ability to perform:

- Interoperability certification of Link-11, Link-16, and Link-14 tactical digital data links
- Cooperative engagement capability testing
- Naval battlegroup interoperability testing

Computer Program Media Production

The ACC provides systems for the production of master disks and tapes containing AEGIS computer programs for delivery from NSWCDL to the AEGIS fleet and land-based test and training facilities. These tapes:

- Consist of tactical computers, tape drives, disk drives, operator control devices, and printers
- Provide unique equipment suites for the CG-47 cruiser and DDG-51 destroyer ship classes

This system is managed under strict configuration control and quality assurance standards to remain compatible with Fleet assets.



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For additional information, please contact:

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